

# Is there a wage penalty associated with degree of indecision in career aspirations? Evidence from the BCS70

Sabates, Ricardo; Gutman, Leslie Morrison; Schoon, Ingrid

Sabates, Ricardo; Gutman, Leslie Morrison; Schoon, Ingrid

**Article — Published Version**

# Is there a wage penalty associated with degree of indecision in career aspirations? Evidence from the BCS70

Longitudinal and Life Course Studies

**Provided in Cooperation with:**
WZB Berlin Social Science Center

Suggested Citation: Sabates, Ricardo; Gutman, Leslie Morrison; Schoon, Ingrid (2017) : Is there a wage penalty associated with degree of indecision in career aspirations? Evidence from the BCS70, Longitudinal and Life Course Studies, ISSN 1757-9597, Society for Longitudinal and Life Course Studies, London, Vol. 8, Iss. 3, pp. 290-301, http://dx.doi.org/10.14301/llcs.v8i3.470

This Version is available at:
http://hdl.handle.net/10419/222641

# RESEARCH NOTE
# Is there a wage penalty associated with a degree of indecision in career aspirations? Evidence from the BCS70

**Ricardo Sabates** University of Cambridge, UK
**Leslie Morrison Gutman** UCL, UK
**Ingrid Schoon** UCL Institute of Education, UK

(Received December 2013 Revised June 2017) http://dx.doi.org/10.14301/llcs.v8i3.470

## Abstract

In this longitudinal study, we test whether varying degrees of indecision about future career choices at age 16 have long-term economic consequences in adulthood, taking into account potential gender differences. Findings from a British cohort born in 1970 indicate that young people who were completely undecided about job choices did experience a wage penalty at age 34 compared to young people who were certain about their job aspirations. This association was significant even after controlling for family socioeconomic status, parental expectations and academic ability at age 16. However, the wage penalty was mediated by educational attainment and part-time employment at age 34. Not being entirely certain about one's future profession by age 16 seems to be part of a career decision making process which does not necessarily incur a wage penalty for most young people, especially if it involves the acquisition of education qualifications.

## Keywords

Career indecision; career aspirations; earnings; 1970 British Cohort; Britain

## Introduction

There is consistent evidence to suggest that high educational and career aspirations during adolescence increase educational achievement, occupational prestige and wage attainments in adulthood (Mello, 2008; Schoon & Parsons, 2002). There is however relatively little research on labour market outcomes associated with uncertain aspirations. The few extant studies have shown that young people with uncertain career aspirations experience more problems at labour market entry and a wage penalty in adulthood (Sabates, Harris, & Staff, 2011; Staff, Harris, Sabates, & Briddell, 2010; Yates, Harris, Sabates, & Staff, 2011). However, to our knowledge, no studies have yet examined whether degree of career indecision matters for wage attainment in adulthood.

In order to understand the role of uncertainty in vocational development we can focus on Super's theory of career development. According to Super (1980), adolescents start to understand their own abilities, skills and interests and thus experience a stage of career exploration which is influenced by their experiences in school, home and work (Super, 1980). It is during this stage that there is an

increase in uncertainty as well as indecisiveness, which reduces as young people crystallise their aspirations concerning career pathways with specific actions for skill acquisition. Previous research has shown that some young people are eager to make their first career decisions and are completely certain about what they want to do in the future, most have a more general idea about the direction they would like to take and others are uncertain about their future job trajectories (Gati, Kleiman, Saka, & Zakai, 2003). Research has further shown that this degree of indecision and uncertainty can be problematic in the labour market as it could lead to young people's floundering, moving from one job to another without a clear trajectory (Kerckhoff, 1998).

In this study, we investigate whether career decision-making at compulsory school-leaving age has long-term socioeconomic consequences in adulthood. More specifically, this study (i) measures different degrees of career indecision; and (ii) investigates whether the degree of indecision, along with level of aspiration, are associated with wage attainment in adulthood among males and females. We draw on evidence from the 1970 British Cohort Study (BCS70), which reached compulsory school leaving age (i.e., age 16) in the mid-1980s, following a major economic recession at the beginning of the decade. Since women generally have lower occupational status and wage attainment than men despite having higher educational qualifications and higher aspirations (Corrigall & Konrad, 2007; Mello, 2008; Schoon & Polek, 2011; Scott, Crompton & Lyonette, 2010), we examine males and females separately.

We investigate the role of covariates measured at age 16, including indicators of parental social status and financial hardship, parental education expectations, as well as adolescent's ethnicity, academic ability and school engagement – all of which have been associated with both occupational aspirations and later educational and occupational outcomes (Croll, Attwood, Fuller, & Last, 2008; Gutman, Sabates, & Schoon, 2014; Gutman & Schoon, 2012; Mau & Bikos; 2000; Schoon, 2010).

Given the strong associations between career aspirations and educational attainment (Mello, 2008) and between level of education and wage attainment (Blanden, Gregg & Macmillan, 2013), we further examine whether educational attainment by age 34 acts as a potential mediator between early career indecision and wage attainment in adulthood. We also include part-time employment as a control variable to account for gendered employment and the fact that part-time employment itself carries a wage penalty (Connelly & Gregory, 2009).

## Method

### Data

Data for this study come from the BCS70, which comprises over 17,000 individuals who were born in Britain during a week in April, 1970. The sample used here was followed up subsequently at ages five, 10, 16, 26, 30 and 34. The analysis of this study is based on 5,318 cohort members with complete information on career aspirations at age 16 and wage attainment at age 34. BCS experienced some sample loss between multiple survey waves. In 1986, there was a teacher's strike that affected data collection for more than half of cohort members. Studies examining potential response bias found that all school children were affected in the same way and that the demographic characteristics of the sample at age 16 remained representative of the target population (Shepherd, 1997). Regarding selection bias at age 34, Vignoles, de Coulon, & Marcenaro-Gutierrez (2011) demonstrated that correcting for it does not change the general direction of results.

### Measures

#### *Wages*

Our outcome variable is wage attainment at age 34. The net hourly wage was calculated from cohort members' income net of all deductions from taxes, contributions to National Insurance, union dues, and pension, and additions resulting from overtime, bonuses, commissions and tips. In addition, if a respondent was employed in both a full-time and part-time job, only the wages of the full-time job were considered to calculate the hourly wage. Those who were self-employed and those only in part-time jobs (less than 30 hours per week) were also included.

#### *Degree of indecision in career aspirations*

Our main explanatory variable is the degree of indecision in career aspirations. At age 16, cohort members were asked to report the kind of jobs, they would like to do later on in life. There were

several pre-formulated response alternatives, including professional/managerial occupations, teaching and administrative posts, and semi-skilled or unskilled jobs. One option was 'cannot decide' from which we identified cohort members who were completely uncertain or undecided about their future careers. A follow up question was "can we now ask whether there is an actual job which you would like to do within the trade industry or profession in which you hope to work". From these two questions we generated a variable that combined socioeconomic level of career aspiration and level of career detail (i.e., how specific young people were about the job they wanted to do within the industry or profession). From these two questions we devised a variable measuring degree of indecision.

The socioeconomic level of career aspirations was classified according to the Registrar General Social Classification into professional and managerial occupations, skilled manual and non-manual occupations and semi-skilled and unskilled occupations (see Standard Occupational Classification, 1991). Young people who aspired to professional or managerial jobs, teaching, nursing and trained clerical professional (e.g., legal, medical, administrative) were classified into professional/managerial occupations. Young people who aspired to administrative work, agriculture or fishing industry, craftsman, IT, health or transport workers or HM forces were classified into skilled occupations. In line with other studies, we combined skilled manual and skilled non-manual occupations into one category (Sabates et al., 2011; Schoon & Parsons, 2002). Finally, young people who aspired to work as maintenance, restaurant or shop workers as well as those on manufacturing or personal services, were classified as in semi-skilled/unskilled occupations.

Within each of these socioeconomic levels, we classified level of career detail into three categories: high, low and no detail provided. The first category contains young people who gave occupations with specific roles, for example "science teacher", "civil engineer" or "plumber" ('high detail' in Table 1). The second category contains young people who were broad in their responses about jobs and only provided a general direction, for example "teacher", "engineer" or "trade" ('low detail' in Table 1). The third category contains young people who specified the sector or industry but did not answer the question about the specific job they wanted to do ('no detail' in Table 1). Finally, a fourth category was those young people who positively responded "I cannot decide" to the question about the kind of jobs they wanted to do in the future.

### *Covariates at age 16*

These include parental social status and parental expectations as well as adolescents' academic ability and later educational attainment. For parental social status, we measured the Registrar General Social Class Scale (RGSC) based on the occupation of the parent holding the job with the highest socioeconomic status, age at which parents left full-time education, and family material hardship, measured by parent assessment of the family financial situation. For parental expectations, we identified parents who expected their children to continue in education after the age of 16.

For adolescent's ethnicity we differentiate between white and non-white British. For adolescent's ability, we include a relative measure of academic performance where teachers compared cohort members to children of similar age (1= top 5%; 7 = bottom 5%). We include a standardised test score in mathematics measured at age 16. Self-concept of ability at age 16 was constructed as a standardised index from cohort members' responses to five questions (alpha = .72) such as "I am clever". School disengagement at age 16 was a mean of cohort members' responses to five questions (alpha = .79) such as "School is a waste of time". Educational attainment at age 34 consists of a six point scale (0 = no qualifications, 1 = below CGSE-level qualifications, 2 = O-level, or GCSE equivalent, 3 = A-Level or equivalent, 4 = university degree or equivalent, 5 = post-graduate degree). Part-time employment at age 34 is coded as 1 = part-time; 0 = full-time.

## Imputation

In order to address potential bias resulting from item-missing data, we used multiple imputation—program ICE in STATA version 10. We imputed five datasets, with all of the independent measures included in the imputation procedure (Rubin, 1996). The estimates for the five combined data sets were analysed using Rubin's rule (Rubin, 1987).

## Analytic Plan

Linear regression was used to estimate three models. In the first model, we estimated the association between occupational aspirations and degree of indecision and wages, as a set of dummy variables defining highest occupational class and maximum certainty about occupational choice as the reference category. In the second model, we included the age 16 covariates. In the third model, we included highest educational qualifications and part-time employment in adulthood at age 34. Separate estimations were performed for males and females.

## Results

Table 1 shows the descriptive statistics for the variables included in the model. Women generally earned less than men, reported higher occupational aspirations at age 16 and were less uncertain in their aspirations. Women were also less disengaged from school than men, had lower scores on the maths test, and reported a lower self-concept of their ability. Women were more likely to be in part-time employment at age 34.

Table 2 shows results from the model estimating the relationship between aspirations at age 16 and wage return in adulthood (at age 34). Column [1] shows the raw relationship with the inclusion of ethnicity but without the inclusion of any other covariates. Results show that there is a clear wage gradient in the level of aspirations for both males and females, whereby those who aspired to professional/managerial jobs when they were 16 achieved higher wages at age 34 than those who aspired to skilled jobs, semi-skilled/unskilled jobs and those who were completely uncertain. Among males, the downward wage gradient is most prominent for those with semi/unskilled, high detailed aspirations. Females have a clearer wage gradient than males, with those were who were undecided about their aspirations at age 16 achieving, on average, the lowest wages in adulthood.

When the age 16 covariates were introduced, the relationship between aspirations and wages in adulthood was significantly reduced as shown in Column [2]. Being completely uncertain regarding one's career aspirations remained significantly associated with a wage penalty for both males and females, though at a reduced level. Among women there still appeared to be some wage differentials in adulthood according to the degree of indecision in their teenage aspirations. In particular, we found that women who aspired to semi-skilled/unskilled occupations, and who provided only a broad direction or no detail about which occupations they wanted to enter had lower wages compared to women who aspired to professional/managerial jobs and gave detailed job information. Statistically significant factors in predicting wage attainment for males included age at which father left education, household financial hardship, teacher-rated ability and exam score at age 16. Significant factors in predicting wage attainment for females included family SES, age at which mother left education, teacher-rated ability and exam score at age 16.

In the final model, the inclusion of achievement of educational qualifications and part-time employment by age 34 more than completely accounts for the wage gradient according to the degree of indecision in their career aspirations among men (see Column [3]). For both men and women, the initial wage differential between those who were completely uncertain about their future and those who aspired to professional/managerial jobs is only marginally significant at the 10% level. For women who aspired to semi-skilled/unskilled jobs, but gave no details of the type of job that they aspired to the wage penalty, remains statistically significant when compared with that for women who aspired to professional/managerial jobs and provided high detail about the kind of job they aspired to.

Figure 1 shows the estimated relationship between the logarithm of wage attainment in adulthood and career aspirations at age 16, based on the final model. Importantly, we focus on the prediction of wages for young people who aspired to professional/managerial, skilled or semi-skilled/unskilled occupations separately and for each of these levels of aspirations we also included the prediction according to the level of detail provided about specific jobs. The main aim of this figure is to visualise if there are any wage differentials according to the degree of detail provided about the job that young people aspired to during adolescence. As it can be seen, for both men and women there is no apparent wage penalty linked to levels of detail about specific jobs within career aspirations. For instance, the average predicted wage in adulthood for men who aspired

to professional/managerial occupations, and who provided a high degree of detail on the kind of jobs, is similar to that of men who also aspired to professional/managerial occupations, but who provided a low degree of detail about specific jobs. Similarly, there is little evidence of a wage differential between men who aspired to professional/managerial occupations and who gave no response to the kind of job within these professions. Similar results hold for women who aspired to professional/managerial occupations, for men and women who aspired to skilled occupations, and for men and women who aspired to semi-skilled/unskilled occupations. The level of detail provided about specific jobs is not associated with wage penalties once the broad occupational aspiration as well as family background, highest academic attainment and whether in full or part-time work are accounted for.

## Discussion

This study expands previous research suggesting a wage penalty attached to uncertain career aspirations at age 16 by examining if the degree of indecision matters too. Findings indicate that complete uncertainty about one's future job was significantly associated with a wage penalty for both men and women, even when family background, parental expectations and academic ability at age 16 were taken into account. However, educational attainment and part-time employment at age 34 mediated the association between uncertain career aspirations and adult wage attainment. Aiming high was associated with higher wages, but within this, being specific about what job one would like to do seemed to offer no significant wage benefit in adulthood. There was however a wage penalty for women who as teenagers aspired to a semi-skilled/unskilled occupation without providing any details about the job they wanted to do, suggesting that women may be at a greater disadvantage than males in terms of their future wage attainment when they have low or no aspirations as adolescents.

In terms of limitations, our analyses are descriptive and thus one must be cautious in drawing any causal inferences. A further limitation is that mediating factors, such as peer influence, mentoring, labour market opportunities and especially, employment experience prior to age 34, were not examined. Another possible limitation is measurement of wage attainment at age 34, when many women tend to be transiently employed in part-time jobs which have their own pay penalty (Connelly & Gregory, 2009) and when selection biases occur around child-bearing for women (Neuburger, Kuh & Joshi, 2011). In addition, there may be a concern regarding selectivity into the different occupational aspiration groups at age 16, given some determinants of aspirations were not captured by the covariates. Lastly, there are also issues in drawing firm conclusions about the associations between career aspirations at age 16, when most young people make the decision whether to remain in education or to leave school, and later wage attainment. The experience leading to outcomes in employment of young school leavers compared with those on a higher education route in the UK is likely to be radically different. Future research may examine how career aspirations predict labour market outcomes using groups defined by different career pathways.

In conclusion, our findings enable us to think about the role of uncertainty in vocational development. Super's theory of career development (1980) suggested the stage of 'exploration' which recognises that young people, between ages 16 and 24, start to crystallise an occupational aspiration as they try different options during school, part-time jobs and volunteering. However, Super's theory is primarily directed at young people on the normative US route of college attendance following high school in the 1980s. Since career options in the modern labour market are becoming broader, there is an increasing demand for young people to become very knowledgeable about the different career options during this stage of 'exploration'. Our results suggest that young people who are completely uncertain about their career aspirations may be at a disadvantage in today's global economy. However, our findings also show no significant impact on income potential for young people who remain somewhat flexible with their career choices at age 16, as long as they aimed high and had some indication of the industry of their future career trajectory. Accordingly, the focus of career counsellors may be best placed on those young people who are completely uncertain about their future career choices when they approach

compulsory school leaving age. Attention may also be placed on raising the ambitions of young females who do not have high aspirations and to help them to formulate a choice by providing information and a better understanding of pathways to employment.

## Acknowledgements

This research was supported by the Economic and Social Research Council Grant RES-000-22-3849 awarded to Leslie Morrison Gutman.

## References

Ashby, J. S. & Schoon, I. (2010). Career success: The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings. *Journal of Vocational Behavior, 77*(3), 350-360. https://doi.org/10.1016/j.jvb.2010.06.006

Blanden, J., Gregg, P. and Macmillan, L. (2013) 'Intergenerational Persistence in Income and Social Class: The Impact of Within-Group Inequality'. *Journal of Royal Statistical Society: Series A*, 176(2): 541-563. https://doi.org/10.1111/j.1467-985X.2012.01053.x

Connolly, S. & Gregory, M. (2009). The part-time pay penalty: earnings trajectories of British women. *Oxford Economic Papers, 61*, 76-97. https://doi.org/10.1093/oep/gpn043

Corrigall, E. A. & Konrad, A. M. (2007). Gender role attitudes and careers: A longitudinal study. *Sex Roles, 56*(11), 847-855. https://doi.org/10.1007/s11199-007-9242-0

Croll, P., Attwood, G., Fuller, C., & Last, K. (2008). The structure and implications of children's attitudes to school. *British Journal of Educational Studies*, *56*(4), 382-399. https://doi.org/10.1111/j.1467-8527.2008.00420.x

Gati, I., Kleiman, T., Saka, N. & Zakai, A. (2003). Perceived benefits of using an Internet-based interactive career planning system. *Journal of Vocational Behavior*, *62*, 272-286. https://doi.org/10.1016/S0001-8791(02)00049-0

Gutman, L. M., Sabates, R., & Schoon, I. (2014). Uncertainty in educational and career aspirations. In I. Schoon and J. S. Eccles (Eds.), *Gender differences in aspirations and attainment* (pp. 161-181). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139128933.011

Gutman, L. M. & Schoon, I. (2012). Uncertain career aspirations: Gender differences among adolescents living in England. *Journal of Vocational Behavior*, *80*(3), 608-618. https://doi.org/10.1016/j.jvb.2012.02.002

Kerckhoff, A. C. (1998). Transition from school to work in comparative perspective. In M.T. Hallinan (Ed.), *Handbook of the Sociology of Education* (pp. 453-474). The Netherlands: Kluwer Academic/Plenum.

Mau, W. C., & Bikos, L. H. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling & Development*, *78*(2), 186-194. https://doi.org/10.1002/j.1556-6676.2000.tb02577.x

Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology, 44*(4), 1069-1080. https://doi.org/10.1037/0012-1649.44.4.1069

Neuburger, J., Kuh, D., & Joshi, H. (2011). Cross-cohort changes in gender pay differences in Britain from 1972 to 2004: accounting for selection into employment using wage imputation. *Longitudinal and Life Course Studies Vol 2, No 3*, 260-285.

Rubin, D. B. (1987). *Multiple imputation for nonresponse in surveys*. New York: John Wiley & Sons. https://doi.org/10.1002/9780470316696

Rubin, D. B. (1996). Multiple imputation after 18+ years. *Journal of the American Statistical Association, 91*, 473–489. https://doi.org/10.1080/01621459.1996.10476908

Sabates, R., Harris, A. & Staff, J. (2011). Ambition gone awry: The long-term socioeconomic consequences of misaligned and uncertain ambitions during adolescence. *Social Science Quarterly*, *92*(4), 959-977. https://doi.org/10.1111/j.1540-6237.2011.00799.x

Schoon, I. (2010). Planning for the Future: Changing Education Expectations in Three British Cohorts. *Historical Social Research-Historische Sozialforschung, 35*(2), 99-119.

Schoon, I. & Parsons, S. (2002). Teenage aspirations for future careers and occupational outcomes. *Journal of Vocational Behavior, 60*(2), 262-288. doi: 10.1016/jvbe.2001.1867

Schoon, I. & Polek, E. (2011). Teenage career aspirations and adult career attainment: The role of gender, social background and general cognitive ability. *International Journal of Behavioral Development, 35*(3), 210-217. https://doi.org/10.1177/0165025411398183

Scott, J., Crompton, R. & Lyonette, C. (Eds.). (2010). *Gender inequalities in the 21st century*. Cheltenham, UK: Edward Elgar. https://doi.org/10.4337/9781849805568

Shepherd, P. (1997). Survey and response. In J. Bynner, E. Ferri, & P. Shepherd (Eds.), *Getting on, getting by, getting nowhere. Twenty-something in the 1990's* (pp. 129-136). Aldershot, U.K.: Ashgate.

Staff, J., Sabates, R., Harris, A. & Briddell, L. (2010) Uncertainty in early occupational aspirations: Role exploration or floundering? *Social Forces, 89*(2), 659-684. https://doi.org/10.1353/sof.2010.0088

Standard Occupational Classification. (1991). *Social classifications and coding methodology*, Vol. 3, London: OPCS/HMSO.

Super, D.W. (1980) A life-span, life-space approach to career development. *Journal of Vocational Behaviour, 16,* 282-298. https://doi.org/10.1016/0001-8791(80)90056-1

Vignoles, A., de Coulon, A. & Marcenaro-Gutierrez, O. (2011). The value of basic skills in the British labour market. *Oxford Economic Papers, 63*(1)*,* 27-48. https://doi.org/10.1093/oep/gpq012

Yates, S., Harris, A., Sabates, R. & Staff, J. (2011). Early occupational aspirations and NEETs: a study of the impact of uncertain and misaligned aspirations and social background on young people's entry into NEET status. *Journal of Social Policy, 40*(3), 513-534. https://doi.org/10.1017/S0047279410000656

**Table 1. Descriptive statistics for variables by gender using imputed data (BCS70)**

| Variables | Description | Men mean (sd) | Women mean (sd) | Sig. Diff |
|---|---|---|---|---|
| *Outcome (Adulthood)* | | | | |
| Log Hourly Wage (age 34) | Take home pay after all deductions from taxes | 2.12 (0.49) | 1.98 (0.45) | ** |
| *Aspirations & Uncertainty (age 16)* | | | | |
| Professional/managerial & High Detail | Professional/managerial career aspirations & high degree of detail | 11.3 | 14.9 | ** |
| Professional/managerial & Low Detail | Professional/managerial career aspirations & low degree of detail | 4.6 | 7.9 | ** |
| Professional/managerial & No Detail | Professional/managerial career aspirations & no detail | 9.3 | 9.6 | |
| Skilled & High Detail | Skilled labour aspirations & high degree of detail | 25.7 | 25.9 | |
| Skilled & Low Detail | Skilled labour aspirations & low degree of detail | 14.1 | 14.1 | |
| Skilled & No Detail | Skilled labour aspirations & no detail | 13.2 | 10.5 | * |
| Semi-skilled/unskilled & High Detail | Semi-skilled/unskilled labour aspirations & high degree of detail | 5.4 | 2.5 | ** |
| Semi-skilled/unskilled & Low Detail | Semi-skilled/unskilled labour aspirations & low degree of detail | 4.0 | 3.4 | * |
| Semi-skilled/unskilled & No Detail | Semi-skilled/unskilled labour aspirations & no detail | 4.2 | 3.6 | * |
| Uncertain | Uncertain career aspirations | 8.3 | 7.6 | * |
| *Mediator Variables (educational attainment at age 34)* | | | | |
| Educational Attainment (age 34) | Highest education attained by youth, six point scale 0=no qualifications to 5=post-graduate qualifications | 3.05 (1.11) | 3.02 (1.12) | |
| Part time Employment (age 34) | Whether in part time employment | 5.5 | 25.0 | ** |
| *Predictor Variables (parental social status & parental expectations)* | | | | |
| High Family SES (I&II) | Highest parental occupation (professional/managerial) | 39.3 | 37.5 | |
| Middle Family SES (III) | Highest parental occupation (skilled) | 48.4 | 49.6 | |
| Low Family SES (IV&V) | Highest parental occupation () | 12.3 | 12.9 | |

| | | | | |
|---|---|---|---|---|
| Age mother left school | Age at which mother left full-time education | 16.4 (1.77) | 15.9 (1.71) | |
| Age father left school | Age at which father left full-time education | 16.1 (2.59) | 16.2 (2.35) | |
| Family financial hardship | Family was troubled by financial situation in 1985 | 10.1 | 9.8 | |
| Parental expectations | Parents who expected cohort member to attend HE (%) | 18.5 | 17.9 | |
| *Predictor Variables (child's ability and engagement)* | | | | |
| Academics (teacher rated) | Teacher rated of academic performance and underlying ability compared to other students of similar age (1 = rated high, 7= rated low) | 3.36 (1.29) | 3.34 (1.28) | |
| Math score | Standardised test scores for math | 0.16 (1.03) | 0.11 (0.98) | ** |
| Self-concept of ability | Standardised index of perceptions on school abilities | 0.11 (0.98) | -0.05 (0.87) | ** |
| School disengagement | Standardized index of responses (1=not true; 3=very true): (a) I feel school is largely a waste of time (b) I think home-work is a bore; (c) Difficult to keep my mind on my work; (d) I never take school work seriously; (e) I do not like school; (f) there is no point in planning for the future you should take things as they come | 0.07 (0.89) | -0.07 (0.92) | ** |
| Ethnicity | Non British White | 5.9 | 4.9 | |

Note: $n$ = 3,037 for women & 2,281 for men. *$p$ < .05, two-tailed. **$p$ < .01, two-tailed. For continuous variables t-test is used and for dichotomous variables chi-squared test.

**Table 2. Unstandardised regression coefficients and standard errors relating aspirations at age 16 to wage attainment in adulthood by gender**

| | Men | | | Women | | |
|---|---|---|---|---|---|---|
| VARIABLES | [1] | [2] | [3] | [1] | [2] | [3] |
| *Age 16 Aspirations (Reference Professional/managerial & High Detail)* | | | | | | |
| Professional/managerial & Low Detail | -0.041 | -0.007 | 0.021 | -0.043 | -0.011 | -0.016 |
| | [0.057] | [0.050] | [0.063] | [0.045] | [0.043] | [0.041] |
| Professional/managerial & No Detail | -0.001 | -0.012 | -0.021 | -0.053 | -0.064 | -0.072 |
| | [0.057] | [0.053] | [0.059] | [0.056] | [0.055] | [0.041] |
| Skilled & High Detail | -0.232** | -0.058 | -0.042 | -0.183** | -0.064 | -0.05 |
| | [0.044] | [0.042] | [0.044] | [0.032] | [0.035] | [0.028] |
| Skilled & Low Detail | -0.268** | -0.088 | -0.039 | -0.202** | -0.087 | -0.085 |
| | [0.062] | [0.059] | [0.051] | [0.042] | [0.045] | [0.037] |
| Skilled & No Detail | -0.276** | -0.065 | -0.028 | -0.203** | -0.077 | -0.059 |
| | [0.066] | [0.065] | [0.055] | [0.038] | [0.040] | [0.033] |
| Semi-skilled/unskilled & High Detail | -0.362** | -0.109 | -0.066 | -0.237** | -0.059 | -0.066 |
| | [0.077] | [0.069] | [0.060] | [0.061] | [0.061] | [0.058] |
| Semi-skilled/unskilled & Low Detail | -0.293** | -0.065 | -0.098 | -0.221** | -0.083* | -0.11 |
| | [0.070] | [0.068] | [0.086] | [0.046] | [0.047] | [0.061] |
| Semi-skilled/unskilled & No Detail | -0.349** | -0.074 | -0.044 | -0.354** | -0.134** | -0.131* |
| | [0.072] | [0.077] | [0.067] | [0.055] | [0.055] | [0.053] |
| Uncertain | -0.357** | -0.135* | -0.112 | -0.430** | -0.146* | -0.123 |
| | [0.069] | [0.073] | [0.072] | [0.078] | [0.071] | [0.072] |
| Ethnicity | 0.097 | 0.092 | 0.092 | 0.093 | 0.092 | 0.092 |
| | [0.075] | [0.073] | [0.073] | [0.092] | [0.089] | [0.089] |
| Educational Attainment (age 34) | | | 0.032* | | | 0.033* |
| | | | [0.011] | | | [0.006] |
| Part-time Employment (age 34) | | | -0.177* | | | -0.099** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | [0.061] | | | [0.024] |
| Middle Family SES (vs. High SES) | | -0.012 | -0.031 | | -0.051* | -0.042 |
| | | [0.030] | [0.044] | | [0.022] | [0.027] |
| Low Family SES (vs High SES) | | -0.084 | -0.024 | | -0.077* | -0.076 |
| | | [0.040] | [0.105] | | [0.037] | [0.041] |
| Age father left school | | 0.013* | 0.013 | | 0.006 | 0.009 |
| | | [0.005] | [0.006] | | [0.004] | [0.006] |
| Age mother left school | | 0.007 | 0.008 | | 0.021* | 0.009 |
| | | [0.007] | [0.009] | | [0.006] | [0.011] |
| Household financial hardship (age 16) | | -0.077* | -0.083 | | -0.025 | -0.035 |
| | | [0.031] | [0.071] | | [0.043] | [0.041] |
| Parental expectations (age 16) | | -0.008 | -0.004 | | 0.008 | 0.001 |
| | | [0.050] | [0.032] | | [0.028] | [0.030] |
| Teacher rated ability (age 16) | | -0.070* | -0.052* | | -0.064* | -0.054* |
| | | [0.022] | [0.016] | | [0.023] | [0.017] |
| Test scores (math age 16) | | 0.064* | 0.058* | | 0.064* | 0.059* |
| | | [0.020] | [0.028] | | [0.016] | [0.020] |
| Own perception of ability (age 16) | | 0.021 | 0.017 | | 0.031 | 0.016 |
| | | [0.026] | [0.024] | | [0.027] | [0.017] |
| School disengagement (age 16) | | -0.025 | -0.022 | | 0.005 | 0.011 |
| | | [0.015] | [0.025] | | [0.009] | [0.012] |
| Constant | 2.298** | 2.005** | 1.886** | 2.139** | 1.845** | 1.912** |
| | [0.042] | [0.139] | [0.175] | [0.028] | [0.187] | [0.149] |
| R^2 | 0.07 | 0.25 | 0.29 | 0.07 | 0.22 | 0.26 |
| Observations | 2281 | 2281 | 2281 | 3037 | 3037 | 3037 |

Note: Numbers in brackets are robust standard errors. Columns [2] and [3] include all predictor variables listed in Table 1. Parameter estimates use Rubin's rule for combining estimates from imputed datasets. *$p < .05$, two-tailed. **$p < .01$, two-tailed.

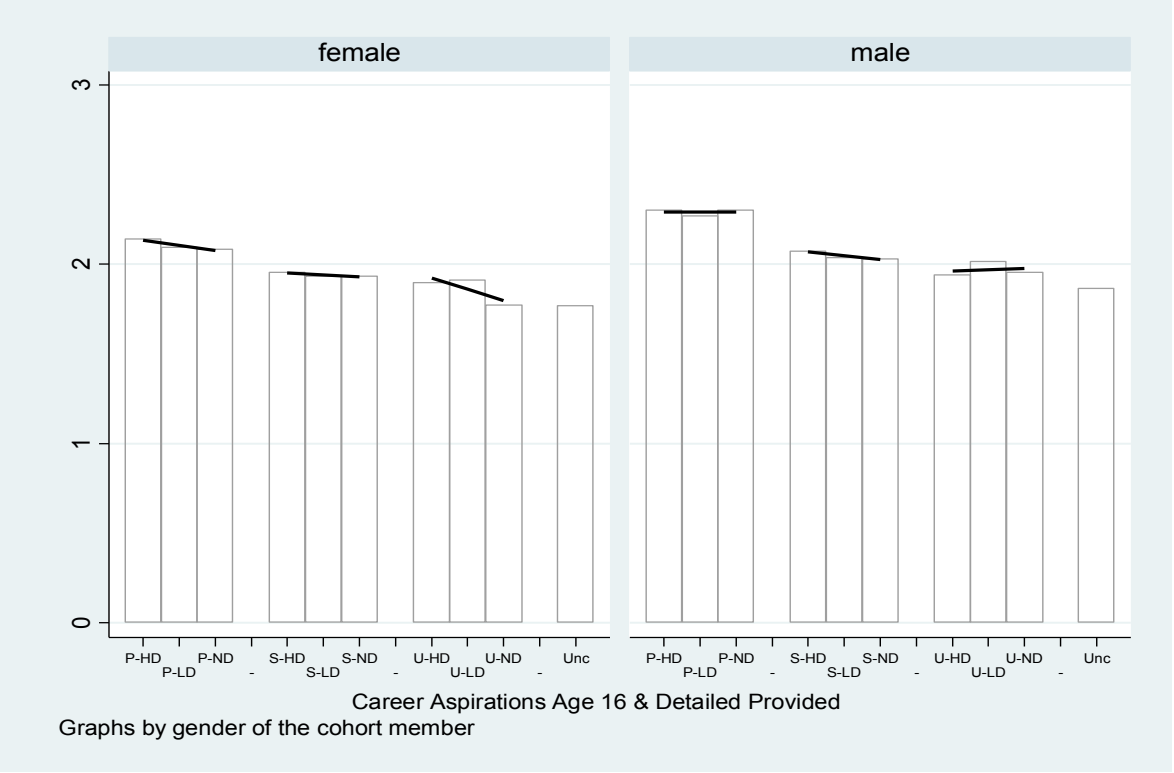


**Figure 1. Estimated wage differential in adulthood according to degrees of uncertainty in career aspirations during adolescence by gender using the BCS70 data**

Labels for aspirations are "P" Professional/managerial, "S" Skilled, "U" Semi-skilled/unskilled and "Unc" Uncertain. Labels for the level of detail or degrees of uncertainty within the range of aspirations are denoted by "HD" for High Detail; "LD" for Low Detail and "ND" for No Detail. Lines indicate best fitted prediction of the wage differential according to degrees of uncertainty in career aspirations at age 16.